
E-Library Management System Implementation and Social Impact @ North Bihar Institutions

Sandhya Kumari¹.

Assistant Professor, Department of I.T

L.N. Mishra College of Business Management, Muzaffarpur¹

Dr. Vijay Kumar Singh²

Assistant Professor, Department of I.T

L.N. Mishra College of Business Management, Muzaffarpur²

Introduction

E-Library is generally a library where books can be accessed through internet. Just sitting anywhere/anytime a user can read the material online. E-Library is knowledge base that can be stored and retrieved through on-line networks. E-libraries are the most complex form of information systems that support digital document preservation, distributed database management, hypertext, filtering, information retrieval and selective dissemination of information. This has really overcome geographical barrier offering wide range of academic, research and cultural resources with multimedia effects which can be accessed around the world over the distributed networks. The paper examines the concept of E-library, the technology that has enabled its emergence & architecture of E- library system.

With the advancement of science and technology, country has witnessed an unprecedented growth of information resulting in information explosion and the information being generated in different formats has further created havoc in providing cost-effective information services to the user community. As a result, libraries have been constantly facing the problems of space, escalation in cost of books & journals, budget shrinkage, inability to provide multiple copies and most important is retrieval efficiency of user being endangered for want of information. The urge to overcome these problems has called for adoption of technology in libraries.



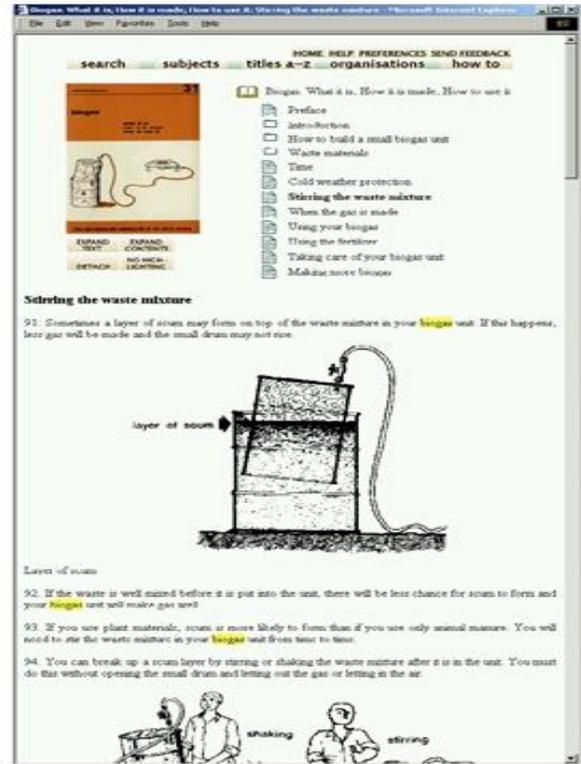
In the past few years, procedures for digitizing books at high speed and comparatively low cost have improved considerably with the result that it digitize millions of books per year. E-library is a collection of textual, numeric data, scanned images, graphics, audio & video recordings that provides access to digital collection for ease of retrieval of information to the users.

Social ADVANTAGES and Ideology

- **No physical boundary:** The user of a digital library need not to go to the library physically; people from all over the world can gain access to the same information, as long as an Internet connection is available.
- **Round the clock availability:** A major advantage of digital libraries is that people can gain access 24/7 to the information.
- **Multiple access:** The same resources can be used simultaneously by a number of institutions and patrons. This may not be the case for copyrighted material: a library may have a license for "lending out" only one copy at a time; this is achieved with a system of digital rights management where a resource can become inaccessible after expiration of the lending period or after the lender chooses to make it inaccessible (equivalent to returning the resource).
- **Information retrieval:** The user is able to use any search term (word, phrase, title, name, subject) to search the entire collection. Digital libraries can provide very user-friendly interfaces, giving clickable access to its resources.
- **Preservation and conservation:** Digitization is not a long-term preservation solution for physical collections, but does succeed in providing access copies for materials that would otherwise fall to degradation from repeated use. Digitized collections and born-digital objects pose many preservation and conservation concerns that analog materials do not. Please see the following "Problems" section of this page for examples.
- **Space:** Whereas traditional libraries are limited by storage space, digital libraries have the potential to store much more information, simply because digital information requires very little physical space to contain them and media storage technologies are more affordable than ever before.

- Easily accessible.
- Human-computer interaction.
- Internationalization.

In many cases the information is provided for the “public good” rather than for commercial profit, and the redistribution of such information is likely to be encouraged, rather than prohibited, by those who make it available. Initiatives like



UNESCO's "Information for all" program and the upcoming World Summit on the Information Society highlight the importance of public information; they are founded on the belief that information literacy will help alleviate many of the problems confronting human societies. Third, the implications for libraries are mixed. Whereas new controls by publishers over how the content they own may be used presents libraries with significant problems, the ready availability of "public good" information meshes well with library philosophy. A new role is emerging for information professionals who can select material, index it, add appropriate metadata, and redistribute it in added-value form for the good of society. Suitable technological infrastructure is being provided by the open source movement, which is making available high-quality software for repackaging and distribution of information (and not just on computer networks).

E-library is characterized by Institution Student/ Teachers:

- Library is at the disposal of users that facilitate access of information by just push of a button.
- Information sources is digitized, compressed and stored in textual/numeric, audio, video, graphic form.
- Time saving device for user community.
- Computer assisted search.
- Geographically distributed creating the concept of world as a global village.
- Alerts users based on their subject interests.

Architecture of E-Library System

- ❖ Full administrative powers in your hand.
- ❖ Full compatibility
- ❖ Secure Database Technique
- ❖ User friendly Application.
- ❖ Most advanced and exclusively featured.
- ❖ World class technology.

A rare collection of applications to suit your style.

E-library system represents the richness and wealth of information which provides the unsophisticated users with flexible access to rich and complicated information. The key components of E- library system are represented in the following chart.

Major system components

User interfaces

Both the pilot and the prototype have two user interfaces: one for the users of the library, the other for the librarians and system administrators who manage the collections. Each user interface is in two parts. A standard Internet browser is used for the actual interactions with the user. This can be Netscape Navigator, Microsoft's Internet Explorer. The browser connects to client services, which provide

intermediary functions between the browser and the other parts of the system. The client services allow the user to decide where to search and what to retrieve; they interpret information structured as digital objects; they negotiate terms and conditions, manage relationships between digital objects, remember the state of the interaction, and convert among the protocols used by the various parts of the system.

Repository

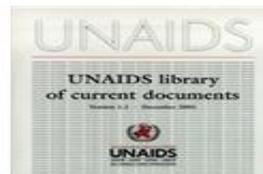
Repositories store and manage digital objects and other information. A large E- library may have many repositories of various types, including modern repositories, legacy databases, and Web servers. The interface to this repository is called the repository access protocol (RAP). Features of RAP are explicit recognition of rights and permissions that need to be satisfied before a client can access a digital object, support for a very general range of dissemination's of digital objects, and an open architecture with well defined interfaces.

Handle system

Handles are general purpose identifiers that can be used to identify Internet resources, such as digital objects, over long periods of time and to manage materials stored in any repository or database. When used with the repository, the handle system receives as input a handle for a digital object and returns the identifier of the repository where the object is stored.

Search system

The design of the E-library system assumes that there will be many indexes and catalogues that can be searched to discover information before retrieving it from a repository. These indexes may be independently managed and support a wide range of protocols.



Roadmap & Key Objectives

Our society is getting new dimension with the involvement of emerging technologies and so any organization needs to upgrade and equipped with these new technologies. This is dedicated towards One-Solution to Organization. One-Solution is compromise with end-to-end solution and services. Since, we are moving towards paperless world to establish the eco friendly edge. Paperless world doesn't correspond to remove completely hard copy concept, however our intention is to minimize the paper work by converting maximum paper work to digital form to promote Digital World.

